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PROCUREMENT SECTION
CURRENT SERIAL RECORDS

Cotton Fiber and Processing Test Results

CROP of 1971



Consumer and Marketing Service
U.S. DEPARTMENT OF AGRICULTURE
Memphis, Tenn. 38117 January 21, 1972

This is the twelfth of a series of reports of fiber and processing test results from the 1971 cotton crop. Subsequent reports in this series will follow at approximately two-week intervals during the harvesting season, and will be summarized in a comprehensive report at the end of the season. This series will present data on the same subject as "Summary of Cotton Fiber and Processing Test Results, Crop of 1970", March 1971. These reports are published by the Standardization Section, Cotton Division, Consumer and Marketing Service, U. S. Department of Agriculture, P. O. Box 17723, Memphis, TN 38117.

COTTON FIBER AND PROCESSING TEST RESULTS, CROP OF 1971

Discussion of Test Results

Cotton testing laboratories of the Consumer and Marketing Service, USDA, report that fibers from Southwestern short staple samples tested through January 4, 1972 are finer and weaker than through the same date last season. Shirley Analyzer nonlint content and picker and card waste are higher. Yarns spun from these samples are weaker and have more imperfections. Average spinning potential yarn number is lower than last season.

Averages for all medium staple samples tested through January 14 show a weaker zero gage fiber strength while 1/8-inch gage fiber strength is the same as a year ago. Yarns spun from these samples show higher appearance grades.

No additional spinning lots were received from the Southeast during this report period or the comparable period a year ago.

South Central medium staple samples are finer than through the same period last season. Yarns spun from these samples show higher appearance grades. No additional samples were received during this report period this season.

Medium staple samples from the Southwest are weaker and less uniform than a year ago. Yarns spun from these samples are weaker. Average spinning potential yarn number is lower than last season.

Medium staple samples from the West are longer than a year ago. Yarns spun from these samples show higher appearance grades.

Averages for all long staple samples tested, not including roller ginned, are finer, less uniform and weaker than last season. Shirley Analyzer nonlint content and comber waste are lower while picker and card waste is higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections.

No additional Southeast or South Central long staple samples were received during this report period.

Long staple samples from the West are shorter, finer and weaker at 1/8-inch gage fiber strength than a year ago. Shirley Analyzer nonlint content is lower while picker and card waste and comber waste are higher. Yarns spun from these samples are weaker with higher appearance grades and fewer imperfections. Average spinning potential yarn number is higher than last season.

No additional American Upland extra long staple samples were received during this report period.

Extra long staple, American Pima, samples from the West are shorter, coarser, and weaker at 1/8-inch gage fiber strength than a year ago. Shirley Analyzer nonlint content is lower. Yarns spun from these samples are weaker than last season.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 14, 1972

1/

Staple group Area, and Crop year	Lots tested	Fiber test results						Processing test results					
		Fibrograph		Mike fine- ness	Fiber strength		S A nonlint gage	P & C waste	Yarn quality		Spin. Imperf- tions		Spin. Potent.
		2.5% span	50/2.5 unif.	Pct.	Zero gage	1/8" gage	Skein str.	Appearance	Index	Carded Yarn	No.	Yarn No.	
Short Staple:													
Southwest													
1970	63	0.94	46	4.3	86	21	3.2	6.0	93	114	29	43	
1971	49	0.95	45	4.0	79	20	4.4	7.2	85	115	37	38	
Medium Staple:													
Southeast													
1970	83	1.07	45	4.4	83	23	3.6	6.7	102	101	18	60	
1971	67	1.08	45	4.4	79	22	3.4	6.6	99	109	20	61	
South Central													
1970	171	1.09	45	4.5	82	22	3.2	6.2	102	106	22	61	
1971	142	1.10	44	4.3	81	22	3.0	5.9	103	112	20	62	
Southwest													
1970	66	1.06	46	4.2	87	23	3.2	6.3	106	113	29	62	
1971	40	1.05	44	4.1	84	22	3.6	6.3	102	116	29	56	
West													
1970	70	1.10	45	4.2	93	25	2.7	5.7	118	113	25	70	
1971	60	1.12	45	4.2	92	25	2.7	5.3	121	120	24	70	
U. S. Average													
1970	390	1.08	45	4.4	85	23	3.2	6.2	106	107	21	63	
1971	309	1.09	44	4.3	83	23	3.1	6.0	105	113	22	63	
Significant difference 2/		0.02	2	0.2	2	1	0.5	0.5	4 (22s)	5	2	3	

1/ Based on a limited number of samples of modal quality considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 1.--Cotton:

Averages of fiber and processing tests from selected gin points in the United States through January 14, 1972
1/ (continued)

Staple group, Area, and Crop year	Lots	Fiber Test Results						Processing Test Results							
		Span	Length		Mike	Strength		SA Non- lint	P&C Waste	Comber Waste	Yarn Quality		SPY		
			Unif	Gage		Zero	1/8"				Strength	combed			
No.	No.	In.	In.	Pct.	Rdg.	Mpsi	G/tx	Pct.	Pct.	Pct.	Lbs. 22s	Lbs. Carded	Indx & Combed Yarn	No.	No.
<u>Long Staple:</u>															
Southeast															
1970	14	1.14	45	4.7	82	23	4.5	8.6	18.5	109	122	103	100	21	11
1971	16	1.14	43	4.3	79	22	4.2	9.7	17.2	102	118	109	118	22	10
South Central															
1970	6	1.16	42	4.6	85	24	4.5	9.2	20.0	102	124	93	115	26	10
1971	3	1.22	43	4.5	83	24	5.3	9.6	16.4	113	130	107	117	20	9
West															
1970	20	1.18	45	3.7	92	27	3.5	8.2	16.0	134	152	86	94	43	26
1971	14	1.16	44	3.5	92	26	2.4	8.7	16.9	128	146	96	104	25	15
U. S. Average															
1970	40	1.16	45	4.2	87	25	4.0	8.5	17.5	120	137	93	99	33	18
1971	33	1.16	43	4.0	85	24	3.5	9.3	17.0	114	131	103	112	23	12
<u>Extra Long Staple:</u>															
West															
1970	3	1.41	32	3.8	112	35	2.5	7.7	18.2	71	103	7			
1971	2	1.41	30	4.0	105	30	2.0	8.2	16.0	66	100			10	
American Upland															
West															
1970	18	1.48	31	3.5	100	34	3.5	8.0	17.7	70	110	4			
1971	21	1.45	31	3.8	99	33	2.7	8.4	17.6	65	113	3			
Significant Difference 2/		0.02	2	0.2	2	1	0.5	0.5	0.5	4(22s)	4(22s)	5	5	2	2

1/ Based on a limited number of samples of modal quality
2/ Minimum differences considered to be significant for comparisons in this table. These guides are based upon averages of a number of lots and are not applicable to individual samples.

Table 2 --Cotton, American upland short staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification		Fiber Test Results								Processing Test Results - Carded Yarns												
		Digital Fibrograph		Fiber Strength		Elongation 1/8"		S. A. Raw Stock		P & C Waste		Strength 74 tx		Elongation 22s or 27 tx		Appearance Index 74 tx		Imperfections 27 tx		Spin. Potential		
Sample Number	Grade	Staple span	Unif.	Mike	Zero Gage	1/8" Gage	1/8" Gage	Raw Stock	Non-Lint	Yel	74 tx	22s or 27 tx	74 tx	22s or 27 tx	74 tx	27 tx	No	No	No			
No	Name & Code	32s	In	Pct	Ridge	Mpsi	Gtex	Pct	No	Pct	Lbs	Lbs	Pct	Pct	No	No	No	No	No			
SOUTHWEST NORTHWEST TEXAS																						
ANSON	1 SLM LT SP	42	30	0.97	43	3.5	73	20	8.6	4.2	3	4	6.9	294	86	8.2	7.2	120	120	64	37	42
BIG SPRING	1 MID LT SP	32	30	0.96	43	3.0	75	19	6.6	3.2	2	4	6.9	275	79	6.5	5.9	120	110	65	39	39
	2 SLM LT SP	42	30	0.92	44	3.0	74	19	7.0	6.8	3	4	7.9	290	82	7.1	6.4	120	120	61	36	41
COLEMAN	1 LM LT SP	1/52	30	1.00	44	4.3	75	20	7.4	4.8	4	4	8.5	280	81	7.4	6.4	120	110	53	33	38
COTTON CENTER	3 LM LT SP	1/52	30	0.89	43	2.8	79	22	7.4	4.8	3	3	8.9	298	88	7.2	6.5	110	110	106	74	36
HAMLIN	1 SLM LT SP	42	31	0.98	43	2.8	71	20	8.4	4.4	3	4	7.3	295	85	8.3	6.8	120	110	54	40	43
LAMESA	2 SLM LT SP	2/42	30	0.90	45	2.9	76	20	7.6	3.1	3	5	6.8	284	83	7.8	7.1	120	120	58	39	35
PADUCAH	1 SLM LT SP	42	31	1.01	44	3.7	80	20	7.2	4.0	4	4	6.3	292	86	7.6	6.4	120	110	65	36	46
PLAINVIEW	2 LM LT SP	52	30	0.95	45	3.0	76	19	6.6	6.4	3	3	9.6	294	85	7.0	6.3	120	110	77	50	36
TULIA	1 SLM LT SP	1/42	29	0.89	44	3.0	82	20	6.3	4.2	3	3	7.0	290	84	7.2	6.0	120	120	52	29	38
OKLAHOMA ALTUS																						
SAYRE	1 SLM LT SP	42	30	0.92	44	3.2	87	21	6.8	4.2	3	4	7.5	293	87	6.3	6.1	120	110	61	35	37
SNYDER	1 SLM LT SP	42	32	0.99	46	4.7	76	21	7.2	2.7	3	3	6.1	299	86	7.4	6.2	120	120	35	25	44
NEW MEXICO CAUSEY																						
PORTALES	3 LM LT SP	1/52	29	0.85	45	2.9	82	21	6.7	7.2	4	4	8.9	291	86	6.7	5.9	110	110	99	61	33
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Table 3 --Cotton, American upland medium staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification		Fiber Test Results										Processing Test Results - Carded Yarns									
		Digital Fibrograph		Fiber Strength		Elongation		Strength		Elongation		Appearance Index		Imperfect's		Spin. Potential					
No	Grade	Sample Number	2.5% span	Unif.	Mike	Zero	1/8"	Gage	S.A.	Raw Stock	P & C	22s or 50s or 27 tx	50s or 27 tx	22s or 50s or 27 tx	50s or 27 tx	22s or 50s or 27 tx	50s or 27 tx	No	No	No	No
SOUTHWEST TEXAS		32s	In	Pct	Ridge	Mosi	G/tex		Pct	Pct	No	No	Pct	Lbs	Pct	Lbs	Pct	No	No	No	No
NORTHWEST TEXAS																					
LUBBOCK																					
2 LM LT SP	1/52	30	0.95	44	2.9	77	20	7.5	3.9	4	4	8.1	96	31	6.6	4.6	100	80	64	48	45
O'DONNELL																					
2 LM LT SP	1/52	31	0.90	44	3.0	79	21	7.4	4.9	4	4	7.8	88	26	6.4	4.2	110	80	46	35	40
RAYLAND																					
1 SLM LT SP	42	34	1.06	45	4.2	85	24	6.4	4.7	3	3	7.0	109	37	5.8	4.3	120	90	29	18	62
ROPESVILLE																					
1 SLM LT SP	42	32	1.03	43	2.7	78	21	7.4	5.6	3	3	7.9	101	34	6.9	4.9	90	70	77	56	52
2 SLM LT SP	42	32	1.03	42	2.7	80	21	7.7	4.4	2	3	6.6	100	35	7.1	5.2	90	70	67	50	52
SEMINOLE																					
1 SLM LT SP	42	30	0.96	43	3.1	82	21	6.9	3.4	3	4	6.8	95	27	6.0	3.9	110	90	31	26	44
2 LM LT SP	1/52	30	0.95	43	2.7	83	23	7.2	6.2	3	4	9.0	103	36	6.4	4.6	100	70	69	50	46
SLATON																					
3 LM LT SP	1/52	33	1.06	43	3.0	80	22	7.4	7.2	3	3	9.8	105	35	7.0	5.0	90	80	67	41	50
VERNON																					
1 LM	51	34	1.07	45	4.1	86	23	6.4	4.7	4	3	7.7	113	39	6.2	4.4	120	90	29	17	64

Table 4 --Cotton, American upland long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification				Fiber Test Results								Processing Test Results - Carded Yarns									
No	Grade	Sample Number	Name & Code	Digital Fibrograph		Fiber Strength		S.A. Non-Lint		Color Raw Stock		P & C Strength		Elongation		Appearance Index		Imperfections		Spin. Potential	
				2.5% span	Staple	Mike	Zero	1/8"	Gage	Comber	Yel. Waste	22s or 27 tx	50s or 27 tx	22s or 27 tx	50s or 27 tx	22s or 27 tx	50s or 27 tx	22s or 27 tx	50s or 27 tx		
WESTERN		32s		In	Pct	Rdg.	Mpsi	G/tex	Pct	Pct	No	No	Pct	Lbs	Pct	Pct	No	No	No		
ARIZONA																					
ELFRIDA	3	MID LT SP	32	36	1.17	43	3.07	93	24	5.5	2.6	1	4	8.9	124	46	6.8	90	80	25	
													*	20.8	147	56	6.7	5.6	120	100	8
NEW MEXICO																				77	
HATCH	41	37	1.18	44	2.8	94	24	5.5	3.1	1	3	9.3	132	52	7.0	5.7	80	70	37	43	
3 SLM											*	17.6	150	58	7.0	5.7	100	70	22	20	
WEST TEXAS																				84	
EL PASO	41	36	1.11	42	3.2	91	24	5.7	2.7	1	2	10.2	121	45	7.0	5.5	90	60	43	45	
3 SLM											*	20.6	141	54	6.9	5.7	100	70	27	30	

1/ 100 percent selected for tests, less than 100 percent in the area

* Comber Waste and Combed Yarn Data

Table 5 --Cotton, American Pima extra long staple: Quality characteristics by production areas, crop of 1971

Production Area, Classification		Fiber Test Results										Processing Test Results - Combed Yarns									
		Array Length		Fiber Strength		Elongat'n 1/8"		S.A. Non-Lint		Color Raw Stock		P & C Comber Waste		Strength		Elongation		Appearance Index			
Sample Number	Length	Mike	Zero	1/8"	Gage	Mike	Zero	1/8"	Grn	Yel	12 ttx	7 ttx	50s or 80s	50s or 80s	50s or 80s	50s or 80s	12 ttx	7 ttx	50s or 80s	12 ttx	7 ttx
No	Grade	Stple	UQL	CV																	
	Name & Code																				
WESTERN																					
ARIZONA																					
PEORIA	4	44	1.50	30	3.9	103	33	6.8	3.7	3	5	9.8	18.8	71	39	5.9	5.2	129	110	4	
NEW MEXICO																					
LAS CRUCES	3	44	1.43	34	3.8	101	32	8.3	2.1	3	5	8.5	17.6	66	37	5.8	5.3	119	129	3	

* 100 percent selected for tests, less than 100 percent in the area

